

JC09 Rec'd PCT/PTO 18 OCT 2009

## SEQUENCE LISTING

&lt;110&gt; Tan, Carina

Howard, Andrew D.

Sano, Hideki

&lt;120&gt; RHESUS MONKEY BOMBESIN SUBTYPE-3

(BRS-3), NUCLEOTIDES ENCODING SAME, AND USES THEREOF

&lt;130&gt; 21198P

&lt;150&gt; PCT/US2004/011473

&lt;151&gt; 2004-04-14

&lt;150&gt; 60/463,776

&lt;151&gt; 2003-04-18

&lt;160&gt; 22

&lt;170&gt; FastSEQ for Windows Version 4.0

&lt;210&gt; 1

&lt;211&gt; 1197

&lt;212&gt; DNA

&lt;213&gt; Macaca mulatta

&lt;400&gt; 1

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ctgaagactt gtataaaagc tggctgcgctc tggatcgtgt ctatgatatt tgctctacct 540  
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<211> 398

<212> PRT

<213> Macacca mulatta

<400> 2

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				20					25					30	
Lys	Gly	Arg	Ser	Gly	Asp	Asn	Ser	Pro	Gly	Ile	Glu	Ala	Leu	Cys	Ala
				35					40					45	
Ile	Tyr	Ile	Thr	Tyr	Ala	Val	Ile	Ile	Ser	Val	Gly	Ile	Leu	Gly	Asn
				50					55					60	
Ala	Ile	Leu	Ile	Lys	Val	Phe	Phe	Lys	Thr	Lys	Ser	Met	Gln	Thr	Val
65					70					75				80	
Pro	Asn	Ile	Phe	Ile	Thr	Ser	Leu	Ala	Phe	Gly	Asp	Leu	Leu	Leu	Leu
				85						90				95	
Leu	Thr	Cys	Val	Pro	Val	Asp	Ala	Thr	His	Tyr	Leu	Ala	Glu	Gly	Trp
				100					105					110	
Leu	Phe	Gly	Arg	Ile	Gly	Cys	Lys	Val	Leu	Ser	Phe	Ile	Arg	Leu	Thr
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Tyr Lys Ala Val Val Lys Pro Leu Glu Arg Gln Pro Ser Asn Ala Ile
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Leu Lys Thr Cys Ile Lys Ala Gly Cys Val Trp Ile Val Ser Met Ile
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Phe Ala Leu Pro Glu Ala Ile Phe Ser Asn Val Tyr Ser Phe Arg Asp
          180          185          190
Pro Asn Lys Asn Val Thr Phe Glu Ser Cys Thr Ser Tyr Pro Val Ser
          195          200          205
Lys Lys Leu Leu Gln Glu Ile His Ser Leu Leu Cys Phe Leu Val Phe
          210          215          220
Tyr Ile Ile Pro Leu Ser Ile Ile Ser Val Tyr Tyr Ser Leu Ile Ala
225          230          235          240
Arg Thr Leu Tyr Lys Ser Thr Leu Asn Ile Pro Thr Glu Glu Gln Gly
          245          250          255
His Ala Arg Lys Gln Ile Glu Ser Arg Lys Arg Ile Ala Arg Thr Val
          260          265          270
Leu Val Leu Val Ala Leu Phe Ala Leu Cys Trp Leu Pro Asn His Leu
          275          280          285
Leu Tyr Leu Tyr His Ser Phe Thr Ser Gln Thr Tyr Val Asp Pro Ser
          290          295          300
Ala Met His Phe Ile Phe Thr Ile Phe Ser Arg Val Leu Ala Phe Ser
305          310          315          320
Asn Ser Cys Val Asn Pro Phe Ala Leu Tyr Trp Leu Ser Lys Thr Phe
          325          330          335
Gln Lys His Phe Lys Ala Gln Leu Phe Cys Cys Lys Ala Glu Gln Pro
          340          345          350
Glu Pro Pro Val Ala Asp Thr Ser Leu Thr Thr Leu Ala Val Met Gly
          355          360          365
Arg Val Pro Gly Thr Gly Asn Met Gln Met Ser Glu Ile Ser Val Thr
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<223> PCR Primer

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<212> DNA

<213> Artificial Sequence

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20

&lt;210&gt; 7

&lt;211&gt; 18

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; PCR Primer

&lt;400&gt; 7

catgcccgta agcaggtt

18

&lt;210&gt; 8

&lt;211&gt; 19

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; PCR Primer

&lt;400&gt; 8

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19

&lt;210&gt; 9

&lt;211&gt; 42

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; PCR Primer

&lt;400&gt; 9

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42

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<211> 38

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer

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38

<210> 11

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer

<400> 11

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25

<210> 12

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer

<400> 12

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<210> 13

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer

<400> 13

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25

<210> 14

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer

<400> 14

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23

<210> 15

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer

<400> 15

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25

<210> 16

<211> 23

<212> DNA

<213> Artificial Sequence

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<223> PCR Primer

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23

&lt;210&gt; 17

&lt;211&gt; 1200

&lt;212&gt; DNA

&lt;213&gt; Homo Sapiens

&lt;400&gt; 17

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 tctccaggaa tagaagcatt gtgtgccatc tatattactt atgctgtgat catttcagtg 180  
 ggcaccccttg gaaatgctat tctcatcaaa gtctttttca agaccaaata catgcaaaca 240  
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&lt;210&gt; 18

&lt;211&gt; 1200

&lt;212&gt; DNA

&lt;213&gt; Rattus Norvrgicus

&lt;400&gt; 18



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gaaacatcaa gctctgccgt ctccaacgat actacaccta aaggatggac cggagacaac 120
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<211> 1199

<212> DNA

<213> Artificial Sequence

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<223> BRS-3 consensus sequence

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tgccagtgga tgcaaccac taccttgcag aaggatggct gttcggaaga attggttgta 360

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<210> 20

<211> 399

<212> PRT

<213> Homo Sapiens

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35 40 45

Ala Ile Tyr Ile Thr Tyr Ala Val Ile Ile Ser Val Gly Ile Leu Gly

50 55 60

Asn Ala Ile Leu Ile Lys Val Phe Phe Lys Thr Lys Ser Met Gln Thr

65 70 75 80

Val Pro Asn Ile Phe Ile Thr Ser Leu Ala Phe Gly Asp Leu Leu Leu

85 90 95

Leu Leu Thr Cys Val Pro Val Asp Ala Thr His Tyr Leu Ala Glu Gly

100 105 110

Trp Leu Phe Gly Arg Ile Gly Cys Lys Val Leu Ser Phe Ile Arg Leu

115 120 125

Thr Ser Val Gly Val Ser Val Phe Thr Leu Thr Ile Leu Ser Ala Asp  
 130 135 140  
 Arg Tyr Lys Ala Val Val Lys Pro Leu Glu Arg Gln Pro Ser Asn Ala  
 145 150 155 160  
 Ile Leu Lys Thr Cys Val Lys Ala Gly Cys Val Trp Ile Val Ser Met  
 165 170 175  
 Ile Phe Ala Leu Pro Glu Ala Ile Phe Ser Asn Val Tyr Thr Phe Arg  
 180 185 190  
 Asp Pro Asn Lys Asn Met Thr Phe Glu Ser Cys Thr Ser Tyr Pro Val  
 195 200 205  
 Ser Lys Lys Leu Leu Gln Glu Ile His Ser Leu Leu Cys Phe Leu Val  
 210 215 220  
 Phe Tyr Ile Ile Pro Leu Ser Ile Ile Ser Val Tyr Tyr Ser Leu Ile  
 225 230 235 240  
 Ala Arg Thr Leu Tyr Lys Ser Thr Leu Asn Ile Pro Thr Glu Glu Gln  
 245 250 255  
 Ser His Ala Arg Lys Gln Ile Glu Ser Arg Lys Arg Ile Ala Arg Thr  
 260 265 270  
 Val Leu Val Leu Val Ala Leu Phe Ala Leu Cys Trp Leu Pro Asn His  
 275 280 285  
 Leu Leu Tyr Leu Tyr His Ser Phe Thr Ser Gln Thr Tyr Val Asp Pro  
 290 295 300  
 Ser Ala Met His Phe Ile Phe Thr Ile Phe Ser Arg Val Leu Ala Phe  
 305 310 315 320  
 Ser Asn Ser Cys Val Asn Pro Phe Ala Leu Tyr Trp Leu Ser Lys Ser  
 325 330 335  
 Phe Gln Lys His Phe Lys Ala Gln Leu Phe Cys Cys Lys Ala Glu Arg  
 340 345 350  
 Pro Glu Pro Pro Val Ala Asp Thr Ser Leu Thr Thr Leu Ala Val Met  
 355 360 365  
 Gly Thr Val Pro Gly Thr Gly Ser Ile Gln Met Ser Glu Ile Ser Val  
 370 375 380  
 Thr Ser Phe Thr Gly Cys Ser Val Lys Gln Ala Glu Asp Arg Phe  
 385 390 395

&lt;210&gt; 21

&lt;211&gt; 399

&lt;212&gt; PRT

&lt;213&gt; Rattus Norvegicus

&lt;400&gt; 21

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          20           25           30
Pro Lys Gly Trp Thr Gly Asp Asn Ser Pro Gly Ile Glu Ala Leu Cys
      35           40           45
Ala Ile Tyr Ile Thr Tyr Ala Val Ile Ile Ser Val Gly Ile Leu Gly
 50           55           60
Asn Ala Ile Leu Ile Lys Val Phe Phe Lys Thr Lys Ser Met Gln Thr
65           70           75           80
Val Pro Asn Ile Phe Ile Thr Ser Leu Ala Phe Gly Asp Leu Leu Leu
          85           90           95
Leu Leu Thr Cys Val Pro Val Asp Ala Thr His Tyr Leu Ala Glu Gly
      100           105           110
Trp Leu Phe Gly Lys Val Gly Cys Lys Val Leu Ser Phe Ile Arg Leu
      115           120           125
Thr Ser Val Gly Val Ser Val Phe Thr Leu Thr Ile Leu Ser Ala Asp
      130           135           140
Arg Tyr Lys Ala Val Val Lys Pro Leu Glu Arg Gln Pro Ser Asn Ala
145           150           155           160
Ile Leu Lys Thr Cys Ala Lys Ala Gly Gly Ile Trp Ile Met Ala Met
          165           170           175
Ile Phe Ala Leu Pro Glu Ala Ile Phe Ser Asn Val Tyr Thr Phe Gln
          180           185           190
Asp Pro Asn Arg Asn Val Thr Phe Glu Ser Cys Asn Ser Tyr Pro Ile
          195           200           205
Ser Glu Arg Leu Leu Gln Glu Ile His Ser Leu Leu Cys Phe Leu Val
      210           215           220
Phe Tyr Ile Ile Pro Leu Ser Ile Ile Ser Val Tyr Tyr Ser Leu Ile
225           230           235           240
Ala Arg Thr Leu Tyr Lys Ser Thr Leu Asn Ile Pro Thr Glu Glu Gln
          245           250           255

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Ser His Ala Arg Lys Gln Ile Glu Ser Arg Lys Arg Ile Ala Lys Thr  
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 Val Leu Val Leu Val Ala Leu Phe Ala Leu Cys Trp Leu Pro Asn His  
 275 280 285  
 Leu Leu Tyr Leu Tyr His Ser Phe Thr Tyr Glu Ser Tyr Ala Glu Pro  
 290 295 300  
 Ser Asp Val Pro Phe Val Val Thr Ile Phe Ser Arg Val Leu Ala Phe  
 305 310 315 320  
 Ser Asn Ser Cys Val Asn Pro Phe Ala Leu Tyr Trp Leu Ser Lys Thr  
 325 330 335  
 Phe Gln Lys His Phe Lys Ala Gln Leu Cys Cys Phe Lys Ala Glu Gln  
 340 345 350  
 Pro Glu Pro Pro Leu Gly Asp Thr Pro Leu Asn Asn Leu Thr Val Met  
 355 360 365  
 Gly Arg Val Pro Ala Thr Gly Ser Ala His Val Ser Glu Ile Ser Val  
 370 375 380  
 Thr Leu Phe Ser Gly Ser Thr Ala Lys Lys Gly Glu Asp Lys Val  
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<212> PRT

<213> Artificial Sequence

<220>

<223> BRS-3 consensus sequence

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 Asn Lys Gly Trp Ser Gly Asp Asn Ser Pro Gly Ile Glu Ala Leu Cys  
 35 40 45  
 Ala Ile Tyr Ile Thr Tyr Ala Val Ile Ile Ser Val Gly Ile Leu Gly  
 50 55 60

Asn	Ala	Ile	Leu	Ile	Lys	Val	Phe	Phe	Lys	Thr	Lys	Ser	Met	Gln	Thr
65					70					75					80
Val	Pro	Asn	Ile	Phe	Ile	Thr	Ser	Leu	Ala	Phe	Gly	Asp	Leu	Leu	Leu
				85					90					95	
Leu	Leu	Thr	Cys	Val	Pro	Val	Asp	Ala	Thr	His	Tyr	Leu	Ala	Glu	Gly
			100					105					110		
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		115					120					125			
Thr	Ser	Val	Gly	Val	Ser	Val	Phe	Thr	Leu	Thr	Ile	Leu	Ser	Ala	Asp
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Ser	Lys	Lys	Leu	Leu	Gln	Glu	Ile	His	Ser	Leu	Leu	Cys	Phe	Leu	Val
	210					215						220			
Phe	Tyr	Ile	Ile	Pro	Leu	Ser	Ile	Ile	Ser	Val	Tyr	Tyr	Ser	Leu	Ile
225				230						235				240	
Ala	Arg	Thr	Leu	Tyr	Lys	Ser	Thr	Leu	Asn	Ile	Pro	Thr	Glu	Glu	Gln
				245					250					255	
Ser	His	Ala	Arg	Lys	Gln	Ile	Glu	Ser	Arg	Lys	Arg	Ile	Ala	Arg	Thr
		260						265					270		
Val	Leu	Val	Leu	Val	Ala	Leu	Phe	Ala	Leu	Cys	Trp	Leu	Pro	Asn	His
		275					280						285		
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	290					295					300				
Ser	Ala	Met	His	Phe	Ile	Phe	Thr	Ile	Phe	Ser	Arg	Val	Leu	Ala	Phe
305				310						315				320	
Ser	Asn	Ser	Cys	Val	Asn	Pro	Phe	Ala	Leu	Tyr	Trp	Leu	Ser	Lys	Thr
				325					330					335	
Phe	Gln	Lys	His	Phe	Lys	Ala	Gln	Leu	Phe	Cys	Cys	Lys	Ala	Glu	Gln
		340						345					350		
Pro	Glu	Pro	Pro	Val	Ala	Asp	Thr	Ser	Leu	Thr	Thr	Leu	Ala	Val	Met

355								360									365
Gly	Arg	Val	Pro	Gly	Thr	Gly	Ser	Ile	Gln	Met	Ser	Glu	Ile	Ser	Val		
370								375									380
Thr	Ser	Phe	Ser	Gly	Cys	Ser	Val	Lys	Gln	Ala	Glu	Asp	Arg	Val			
385							390										395